



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

M

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,228	01/31/2002	Gurinder S. Kahlon	10541/1176	2765

29074 7590 08/12/2003

BRINKS HOFER GILSON & LIONE  
P.O. BOX 10395  
CHICAGO, IL 60611

EXAMINER

CASTRO, ARNOLD

ART UNIT PAPER NUMBER

3747

DATE MAILED: 08/12/2003

b

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n No.

10/066,228

Applicant(s)

KAHLON ET AL.

Examin r

Arnold Castro

Art Unit

3747

-- The MAILING DATE of this communication appears n the c ver sheet with the correspondenc address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosaka (US/4,721, 083) in view of Huat et al. (US/6,561,336).

Hosaka describes a system for preventing stalling in a vehicle engine, the system comprising: an separate starter and alternator operably connected with the engine, the starter transmits torque to the engine and the alternator produces electric energy; at least one electric energy storage device (e.g. a battery) is in electrical communication with the starter and alternator; at least one controller is in electrical communication with said starter and alternator; and at least one sensor is operably connected with the

Art Unit: 3747

engine sending a signal indicative of engine performance (step 3153 fig. 8) to said at least one controller. The controller compares the signal to a predetermined condition indicative of engine stall and controls the starter or alternator to transmit a torque or remove a torque to the engine sufficient to prevent engine from stalling. The signal indicative of engine performance is selected from the group consisting of crankshaft speed, camshaft speed and output torque. {Col. 21, lines 5-15}. The system has a voltage sensor 264 sending signals to controller see column 11, lines 31-36, 13 lines 5-10, figure 1B, Inherently the voltage regulator of the system of measures the bus voltage to a predetermined charge threshold value and controls said alternator to charge said an electric energy storage device. Hosaka shows a method of preventing stall of a vehicle engine, said method comprising: measuring at least one engine parameter relating to engine performance; detecting an engine condition known to lead to engine stall by comparing said at least one engine parameter to a predetermined value; and powering an the starter from an electric energy storage device to apply additional torque to said vehicle engine when said engine stall condition is detected. However, Hosaka has a separate alternator and starter.

Huart et al. on the other hand shows an integrated starter alternator for an internal combustion engine. One of the reasons for invention of Huart et al is stated in col. 2, line 13 wherein it states "It is possible to filter the vibration and to avoid stalling of the heat engine by operating as an electric motor."

Art Unit: 3747

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the separate alternator and starter of Hosaka with the integrated starter alternator of Huat et al.

The motivation to do so is stated in Huat et al. col. 2 lines 4-14.

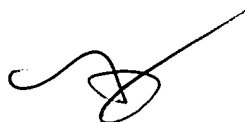
**Conclusion**

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Downs et al. forecast the stall position of an engine and operates motor generator to position engine in optimum position. Kristiansson switches between starter and generator to reduce the vibrations of an engine.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnold Castro whose telephone number is (703) 305-0039. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yuen Henry can be reached on (703) 308-1946. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.



**Henry C. Yuen**  
**Supervisory Patent Examiner**  
**Group 3700**



**Arnold Castro**  
**Examiner**  
**Art Unit 3747**

AC  
August 4, 2003